PGY-7 (2nd Year)
GOALS AND OBJECTIVES
VANDERBILT UNIVERSITY MEDICAL CENTER
VASCULAR SURGERY PROGRAM

ROTATION-BASED GOALS AND OBJECTIVES

A. VANDERBILT HOSPITAL VASCULAR SURGERY SERVICE COMPETENCY BASED GOALS (2nd Year)

Patient Care and Procedural Skills.
The fellow must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. In addition to the Goals and Objectives outlined for first-year fellows, the second-year fellows must be able to:

- ✓ demonstrate manual dexterity appropriate for their educational level.
  - o Demonstrate independence in the open surgical, endovascular and medical management of all manner of patients with vascular disease.
- ✓ develop and execute patient care plans appropriate for their educational level. This includes:
  - o demonstrating independent decision-making, operative management and team leadership skills for all facets of vascular disease and vascular practice management.
  - o making appropriate decisions regarding involvement of other team members in patient care, including notification of attending surgeons, delegating care to more junior trainees, involvement of other health care professionals, and, when appropriate, implementation of independent decisions.
- ✓ develop essential operative skills that can be acquired only through personal experience and education. This includes:
  - o assuming a leadership role in the following aspects of patient management: *determination or confirmation of the diagnosis; provision of preoperative care; selection and accomplishment of the appropriate operative procedure; direction of postoperative care; and accomplishment of sufficient follow-up to be acquainted with both the course of the disease and the outcome of its treatment.* Participation only in the operation, without preoperative and postoperative care, is inadequate.
- ✓ have continuity of primary responsibility for patient care including ambulatory care, inpatient care, referral and consultation, and utilization of community resources. This includes:
  - o understanding the daily plan for each patient and facilitating the communication and rationale for this plan with residents on the team as well as between services, especially for vascular surgery consults and patients in the intensive care unit.
  - o Inpatient care: Make daily rounds and have full knowledge of medical problems of all patients under his/her care as well as consults on other services.

- knowing the progress of every patient every day and personally examine patients with new problems.
- performing a detailed assessment on every new patient admitted to the vascular services from the emergency department.
- making daily assessment and plans on every vascular patient in the ICUs and consult patients. Assist in service organization, including daily care of patients on the hospital ward and in outpatient units.
- Community resources: Participate in discharge planning, including ordering appropriate outpatient tests and ensuring appropriate follow-up.

Medical Knowledge

Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care. First-year fellows:

- ✓ must be able to critically evaluate and demonstrate knowledge of pertinent scientific information in two formats:
  - Prepare, conduct and participate in divisional, departmental and system-wide M/M Conferences (see below).
  - Participate in the assessment of his or her fund of medical knowledge by taking the annual VSITE.
- ✓ will participate in the weekly educational conferences that will provide the basis for education in the entire vascular system, as outlined in the written curriculum. Instruction in each area should be associated with relevant patient exposure and presented in "case conferences" throughout the academic year.
  - Second-year fellow(s) will be responsible for planning and presenting in the Vascular M/M Conference and Surgical Services M/M Conferences, with the input and final approval of the program director.
- ✓ must demonstrate proficiency in the fundamental sciences, including anatomy, biology, embryology, microbiology, physiology, and pathology as they relate to the pathophysiology, diagnosis, and treatment of vascular lesions. The specific areas covered are detailed in the APDVS written curriculum for basic and clinical science.
- ✓ must actively prepare, present, and participate in weekly M/M conferences and must attend other required vascular conferences as listed below:

Tuesday Multidisciplinary Aortic Conference 0630-0730		Proctor/Planner various
Wednesday Departmental M/M 0630-0730		Proctor/Planner Faculty/PGY7 during second week

Thursday Vascular conference 0700-0800	Title	Proctor/Planner
Week # 1	Basic and Clinical Science	Faculty / PGY6 Fellow
Week # 2	Basic and Clinical Science	Faculty/ PGY6 Fellow
Week # 3	M/M conference	Faculty/ PGY7 Fellow
Week # 4	Basic and Clinical Science	Faculty / PGY6 Fellow
Journal Club 5 times/year 1730-1900		Proctor/Planner Faculty/PGY6 Fellow
Friday Departmental Grand Rounds 0700-0800		Proctor/Planner various
Quarterly 0630-0800	Multidisciplinary M/M	System Leadership

Practice-Based Learning and Improvement

Fellows must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning. Fellows are expected to develop skills and habits to be able to meet the following goals:

- ✓ systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement
  - o Complete quality improvement project
- ✓ locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
  - o Complete a clinical study in concert with one of the faculty that may be continued with the goal of publication in a peer-reviewed journal (see Overall Goals and Objectives)
- ✓ participate in the education of patients, families, students, residents and other health professionals**.**
  - o Take primary responsibility for supervising junior residents in the management of patients on the inpatient vascular services and outpatient clinics
  - o Complete all research projects and apply new knowledge to surgical practice
- ✓ critique personal practice outcomes
  - o Complete quality improvement project, as noted above
- ✓ demonstrate recognition of the importance of lifelong learning in surgical practice.
  - o Demonstrate sound surgical judgment based on superior knowledge, rational thinking, and the surgical literature
  - o Complete at least one paper for publication that will be of sufficient quality, uniqueness, and interest to the community of vascular to be presented at a national/regional meeting or be published in a peer review journal.

Interpersonal and Communication Skills

Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Fellows are expected to:

- ✓ effectively document practice activities.
  - o Manage the reporting of patient morbidity and mortality undergoing open and endovascular interventions at the weekly M&M conference.

Professionalism

Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Fellows are expected to adhere to principles noted in First-year Fellow Goals and Objectives.

System-Based Practice

Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Fellows are expected to adhere to principles noted in First-year Fellow Goals and Objectives.

Technical Skills

The resident will be able to demonstrate advanced technical competency in open and endovascular procedures which include, but are not limited to:

- ✓ Toe amputations
- ✓ Major leg amputations
- ✓ Varicose vein surgery
- ✓ Develop surgical skills, including familiarity with operative exposure, dissection, endarterectomy, suturing, grafting, and thrombectomy.
- ✓ Demonstrate familiarity with basic guide wires, catheters, and other devices used for diagnostic and therapeutic interventional procedures.
- ✓ Develop familiarity and skill with basic fluoroscopic imaging, guidewire management, diagnostic arteriography and venography, angiography suite and interventional device inventory management under the guidance of faculty vascular surgeons.
- ✓ To develop proficiency with percutaneous arterial and venous cannulation of the upper and lower extremity.
- ✓ To perform under supervision diagnostic arteriography and venography of the abdomen and lower extremities.
- ✓ To demonstrate expertise with percutaneous puncture and with diagnostic arteriography of the abdomen and lower and upper extremities.

- ✓ Perform routine ultrasound examinations of the arteries and veins of the neck, abdomen, and extremities to evaluate carotid, aorta, vena cava, iliac vessels, and extremity vessels.
- ✓ Perform graft imaging for follow-up of arterial reconstruction.
- ✓ Be competent to independently perform basic duplex and hemodynamic vascular laboratory examinations.
- ✓ Exposure of major arterial vessels for repair and/or reconstruction.
- ✓ Uncomplicated arterial repair or anastomosis.
- ✓ Femoral endarterectomy
- ✓ Exposure and repair of traumatically injured extremity arteries and veins.
- ✓ Exposure of abdominal aorta through transabdominal and retroperitoneal exposure.
- ✓ Spine exposures for orthopedic/neurosurgical procedures.
- ✓ SFA popliteal and tibial PTA and stenting.
- ✓ Femoral to above knee popliteal bypass with vein and prosthetic grafts.
- ✓ Carotid endarterectomy.
- ✓ Sclerotherapy of telangiectasias and varicose veins.
- ✓ Stab avulsion phlebectomy of varicose veins.
- ✓ Catheter based ablation and open surgery of the greater and lesser saphenous vein.
- ✓ Perform under supervision, balloon angioplasty, and stenting of iliac and lower extremity arteries.
- ✓ Perform under supervision thrombin injection of femoral pseudoaneurysms.
- ✓ Become proficient with the use embolic protection devices during endovascular procedures
- ✓ Become proficient with catheter directed thrombolysis procedures. To perform under supervision catheter directed thrombolysis procedures.
- ✓ Obtain angiographic access with minimal assistance and learn how to navigate catheters over the aortic bifurcation and achieve first, second, and tertiary order selective cannulation.
- ✓ Perform carotid balloon angioplasty and stenting with cerebral protection devices.
- ✓ Perform vena cava filter placement.
- ✓ Femoral to below knee popliteal and tibial bypass with vein, prosthetic grafts, and cryopreserved homografts.
- ✓ Open and endovascular repair of abdominal aortic and iliac aneurysms.
- ✓ Open and endovascular repair of popliteal aneurysms.
- ✓ Upper extremity bypass and endovascular procedures, including treatment of failing angio access.
- ✓ Extra-anatomic bypass and anatomic bypass for aortic/iliac obstructive disease.
- ✓ Endovascular repair of thoracic aortic pathology.
- ✓ Exposure and repair of suprarenal, thoracic and thoracoabdominal aortic aneurysms.
- ✓ Perform surgery for thoracic outlet syndrome when indicated.
- ✓ Repair of venous and arterial injuries in the extremities, neck, chest, and abdomen.
- ✓ Perform arch aortogram with selective catheterization of cerebral vessels.
- ✓ Mechanical thrombectomy with and without thrombolysis.
- ✓ Selective catheterization of branch arteries for embolization.

- ✓ Visceral and renal artery balloon angioplasty and stenting.
- ✓ Venous thrombolysis and stenting when indicated.
- ✓ Open repair of acute and chronic thoracic and thoracoabdominal aortic dissection.
- ✓ Open and endovascular repair of visceral and renal artery stenosis/occlusions.
- ✓ Complex open repair of suprarenal AAA and re-do aortic aneurysm/occlusive disease procedures.
- ✓ Infected bypass graft removal and reconstruction.
- ✓ Carotid body tumor excision.
- ✓ Upper extremity bypass and direct cervical brachiocephalic reconstruction. Endovascular treatment of same.
- ✓ Complex extremity, abdominal and visceral embolization procedures.
- ✓ Obtain competence to perform all procedures on the ACGME vascular/endovascular surgery case log forms.